



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,371	11/21/2003	Yin L. Liong	08212/1200285-US1	3587
38879	7590	12/23/2005	EXAMINER	
DARBY & DARBY P.C.			SHINGLES, KRISTIE D	
P.O. BOX 5257			ART UNIT	
NEW YORK, NY 10150-6257			PAPER NUMBER	

2141

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/719,371	Applicant(s) LIONG ET AL.	
	Examiner Kristie Shingles	Art Unit 2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant has amended claims 1, 5, 11, 14, 21, 25 and 26.

Claims 1-27 are pending.

Response to Arguments

1. Applicant's arguments with respect to claims 1, 5, 11, 14 and 21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-8, 10-16, 18-23 and 25-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Chen et al* (US Publication 2003/0053464) in view of *Ma et al* (US 6,775,280).

Art Unit: 2141

a. **Per claim 21**, *Chen et al* teach the method for configuring Diffserv over MPLS in a network, comprising:

- defining a mapping policy configured to map between an EXP field and a unique PHB (paragraphs 0003, 0014, 00150026, 0048 and 0055-0056; provision for routing policies mapped between EXP fields and a PHB);
- defining a customer policy that is configured to govern the treatment of individual customer traffic (paragraphs 0009 and 0026; provision for customer/operator policies);
- defining a network policy that is configured to define the Diffserv treatment of aggregated traffic (paragraphs 0003, 0026, 0032, 0045-0054, 0057, 0075-0085 and 0113; provision for Diffserv code points and Diffserv IP packet categorization wherein the QoS-oriented FEC classes are mapped to Diffserv Scheduling Classes);
- translating the mapping policy, the network policy and the customer policy into device-specific commands (paragraphs 0009, 0041, 0042, 0047-0054 and 0071).

Chen et al fail to explicitly teach the limitation of deploying the device-specific commands to policy targets, wherein each policy target includes an interface assigned a role name associated with the customer policy. However, *Ma et al* teach transmitting the customer policy data through the output port associated with that quality of service (QoS), wherein a QoS field is used to indicate the QoS class associated with the policy data and the output ports (col.2 lines 11-32 and 45-58, col.3 lines 19-33, col.3 line 61-col.4 line 3, col.4 line 55-col.5 line 6, col.8 lines 10-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Chen et al* and *Ma et al* for the purpose of associating the interface of the policy target of the with the corresponding policy and QoS treatment required for that data, because this provides efficient routing of data, by designating certain ports/interfaces for specific types of data having an associated QoS.

b. **Claims 1, 5, 11 and 14** contain limitations that are substantially similar to claim 21 and are therefore rejected under the same basis.

c. **Per claim 2**, *Chen et al* and *Ma et al* teach the system of claim 1, *Chen et al* further teach wherein the customer policy comprises a tunnel group identifier and tunneling mode (paragraphs 0026, 0032-0048, 0052-0057, 0061-0065, 0091 and 0113-0121).

d. **Claims 12, 20 and 27** are substantially similar to claim 2 and are therefore rejected under the same basis.

e. **Per claim 6**, *Chen et al* and *Ma et al* teach the apparatus of claim 5, *Chen et al* further teach the apparatus further comprising: a user interface that is arranged to receive the customer policy and the mapping policy (paragraphs 0009, 0026, 0041-0054, 0057, 0060-0065, 0071, 0075-0085 and 0113).

f. **Per claim 7**, *Chen et al* and *Ma et al* teach the apparatus of claim 5, wherein deployment is such that the interfaces associate with at least one of input roles, output roles and MPLS gateways of customer source and destination host groups (paragraphs 0026, 0042, 0060-0065, 0071, 0077 and 0088; *Ma et al*: col.2 lines 11-32 and 45-58, col.3 lines 19-33, col.3 line 61-col.4 line 3, col.4 line 55-col.5 line 6, col.8 lines 10-43).

g. **Per claim 8**, *Chen et al* and *Ma et al* teach the apparatus of claim 5, wherein the policy consumer is further arranged to attach the customer policy to the corresponding MPLS tunnels and deploy the customer policy to interfaces of the attached MPLS tunnels (paragraphs 0060-0065, 0075-0077, 0087-0091, 0118-0122 *Ma et al*: col.2 lines 11-32 and 45-58, col.3 lines 19-33, col.3 line 61-col.4 line 3, col.4 line 55-col.5 line 6, col.8 lines 10-43).

h. **Claims 3, 4, 13, 18, and 25** are substantially similar to claims 7 and 8 and are therefore rejected under the same basis.

i. **Per claim 10**, *Chen et al* and *Ma et al* teach the apparatus of claim 5, *Chen et al* further teach the apparatus wherein the service application comprises a tunnel group object that is arranged to create the MPLS tunnels by specifying end-point routers and inter-connecting topology (paragraphs 0017-0018, 0026, 0032-0035, 0047, 0052, 0055-0059 and 0091).

j. **Per claim 15**, *Chen et al* and *Ma et al* teach the article of claim 14, *Ma et al* further teach the article wherein executing the instructions further results in: generating device neutral information associated with the mapping policy, the network policy and the customer policy (col.1 lines 29-44, col.2 lines 3-58, col.3 lines 3-24, col.3 line 61-col.4 line 3, col.4 line 38-col.5 line 4).

k. **Claims 16, 22 and 23** are substantially similar to claim 15 and are therefore rejected under the same basis.

l. **Per claim 19**, *Chen et al* and *Ma et al* teach the article of claim 14, wherein deploying the mapping policy to the network interfaces further comprises issuing new commands to reconfigure a router based on the mapping policy (paragraphs 0009, 0026, 0047, 0059, 0075-0078 and 0091; *Ma et al*: col.9 lines 58-65, col.10 lines 58-67).

m. **Claim 26** is substantially similar to claim 19 and is therefore rejected under the same basis.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 9, 17 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Chen et al* (US Publication 2003/0053464) and *Ma et al* (US 6,775,280) in view of *Goguen et al* (USPN 6,665,273).

a. **Per claim 9**, *Chen et al* and *Ma et al* teach the apparatus of claim 5 as applied above, yet fail to explicitly teach a database for storing the device-neutral policy parameters. However, *Goguen et al* disclose a topology database that stores the constraints, commands and requirements for the network and for the tunnels in the system (col.1 line 65-col.2 line 13, col.2 lines 19-40, col.4 lines 1-63, col.5 lines 28-54 and col.7 lines 36-64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Chen et al* and *Ma et al* with *Goguen et al* for the purpose of storing and maintaining the policies and parameters that constrain the routing and paths in the communication network in order to maintain the information and update it when modifications, re-configurations or adjustments are performed in the network's topology.

b. **Claims 17 and 24** are substantially similar to claim 9 and are therefore rejected under the same basis.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: *Roch et al* (US Publication 2005/0088977), *Liu* (US Publication 2004/0081197), *Madour et al* (US 6,611,532), *Foot et al* (US Publication 2005/0018605), *Ishihara et al* (US Publication 2004/0258056), *Menditto et al* (US 6,968,389), *Mauger* (US 6,522,627).

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2141

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles

Examiner

Art Unit 2141

kds


RUTEL DHATIA
SUPERVISORY PATENT EXAMINER